Taylor (C. F.)

ON THE

MANAGEMENT

OF

LUMBAR AND PSOAS ABSCESS.

BY CHARLES F. TAYLOR, M. D.,

Read before the New York Medical Journal Association, December 17th, 1869.

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Since it has been demonstrated that disease of the spinal column is capable of successful treatment, and, under favorable circumstances, of absolute cure in a certain number of cases, all the complications which may arise during the progress of this disease, become endowed with an interest which they could never possess while the disease which gave rise to them was considered essentially incurable. Among the most important of these complications, lumbar and psoas abscess certainly stand most conspicuous.

The question "how shall lumbar and psoas abcess be treated," is constantly asked or suggested by writers, but I have not yet seen it definitely answered. Authors have told us that we may do various things; we may apply iodine, and other substances, in the hope of causing absorption; we may evacuate its contents; and if we evacuate it, we may do it in various ways; by the trochar; by the bistoury with a valvular opening, or by a free

incision; they direct us how to exclude the entrance of atmospheric air, etc., but no one anywhere gives us definite instructions or even definite ideas in regard to their treatment, so far as I have been able to discover. In Miller's Surgery, which used to be a text book, we read thus, "If there be no prospect of ultimate cure, no opening should be made . . . . If the case present a favorable aspect, on the contrary—the amount of disease in the spine seeming slight, and the system yet tolerably robust—a free evacuation should be made by puncture." But he adds such grave cautions as would deter one from doing anything.

Erichsen says, "If it be opened, putrefaction of the pus, consequent on the entry of air into the distended cyst, will give rise to the most serious constitutional disturbance, setting up irritative fever, that may rapidly prove fatal in a debilitated frame; and should the patient escape this danger, the drain of an abundant suppuration may speedily exhaust him." The valvular opening originally suggested by Abernethy, is recommended by most authors, "but," says Professor Gross, "I am compelled to say that it has utterly disappointed me in the only class of cases to which, in my judgment, it is at all applicable. My experience is that the opening however judiciously made, will, at no distant day, be followed by ulceration, and thus lead to the bad effects that are usually caused by making a free incision in the first instance." In conclusion he says, "it is best as a general rule, to let the part alone, patiently waiting for spontaneous evacuation, and the accommodation of the system to the approaching event." The practice of the profession seems to correspond to the hesitating directions of authors, or rather to the unhesitating advice of Professor Gross to let them alone, and I

have never had but a single case of lumbar or psoas abscess which had received any surgical attention whatever. As that case was the beginning of my knowledge of the subject, and may be said, with subsequent experience, to have laid the foundation of my present views, I will relate it.

Case I.—Ten years ago, a little boy, Michael Flannegan, aged six years, was brought to me by his mother, a poor Irish woman, for disease of the spine. There was considerable distortion, but the child seemed in good condition, except that there was a small lumbar abscess. I found on inquiry, that the child had been taken to Dr. Van Buren, and that, during the previous year, he had evacuated the abscess three times with the trochar. I applied my apparatus for relieving pressure on the diseased vertebræ, and to my surprise, I soon found, first, that the abscess did not increase, and later that it actually diminished in size. They lived in a shanty on the rocks in the upper part of the city, and it was impossible to keep the child either well supported or well fed; so that after a while the abscess began to increase again, and finally after about a year and a half, it discharged by a spontaneous opening. Following the views of the writers whom I had consulted, I had condemned Dr. Van Buren's procedure, and looked forward with complacency to the results of non-interference. My complacency did not last, but the abscess did. I followed the case for six years, and when I last saw him, he was a most miserable object to behold. The abscess was still discharging.

In the meantime other cases with abscess had presented themselves, and I had found that where there was a tolerable constitution, and the abscess had not been of long standing, it would disappear by absorption in a few weeks or months after sup-

port to the spine was applied. Here was a great point gained. And all my subsequent experience has had the same uniform result, and that is, that the majority of lumbar and psoas abscesses in the first stages, will disappear after the spine is properly supported. And if no abscess exists, the danger of one is reduced to the minimum, when the diseased vertebræ are allowed to repair themselves by the use of the spinal assistant.

Hence, my first proposition is this: The first step in the treatment of lumbar or psoas abscess is to treat their cause in the spinal column. The abscess is but a symptom after all. It is idle to address our treatment to a mere symptom without first applying the appropriate remedy to the source of the trouble.

In the cases under consideration, the source of the visible abscess lies in the bodies of the spinal vertebræ. The larger proportion of diseases of the spine arise directly from falls, blows, and the like traumatic causes. It is first, a simple inflammation, and at that stage, is as amenable to treatment as inflammation in any other part, and like all other inflammations, only requires rest; given perfect, absolute rest, and it will subside. And even when this inflammation, at first simple and healthy, as in any other part, is allowed to degenerate into caries, and the matter there formed escapes into a reservoir called an abscess, the indications are still the same; to relieve the diseased vertebræ from pressure and motion; and recovery, though less perfect and more tardy, will yet take place. But, I repeat, so long as the disease in the spine, where the abscess has its origin, is not attended to, it were idle to talk of a treatment for one of its symptoms or effects. In regard to the preventing of abscess by relieving the disease in the bodies of the vertebræ, I am able to

speak with emphasis. On examining our records, I find that out of one hundred and eighty-three private cases, there were but three cases of abscess occurring after treatment for disease of the spine had commenced. In all other instances, the abscess existed when the patient was brought to me for treatment for disease of the spine. I have already stated that in some cases, an abscess will disappear, if treatment of the spine is commenced in the earlier stages of the disease. This is more often true, if, instead of an abscess visibly approaching the surface, there exists only the incipient symptoms of the formation of an abscess. These symptoms are very easily distinguished. While the disease is a simple inflammation of the bodies of the vertebræ, sufficient support invariably gives instantaneous relief to the gastralgia, which is the prominent symptom in the early stages of disease of the spine. But if we do not get then complete relief, I am always led to suppose that the destruction of the bodies of the vertebræ has commenced, and that there are caries, and of course the material for a lumbar or psoas abscess. Support will still give partial relief; but it is not till after a certain length of time has elapsed, and disintegration of bone has ceased, that the patient realizes that complete exemption from suffering which so rapidly follows efficient support to the diseased vertebræ in the earlier stage. Sometimes in such cases, the abscess may appear near the surface after a while and then pass away; but in most cases we never see the abscess—the pus does not approach the surface—but disappears by absorption at its source, and with it the suffering incident to its formation. In disease of the lumbar and several of the lower dorsal vertebræ, contraction of the psoas muscle is a sure indication of the early stage of psoas abscess, and if no treatment were applied to the

source of the trouble in the spinal column, an abscess surely in due time makes its appearance. But this symptom, which is present in a very large number of cases, in all but two instances out of one hundred and eighty-three cases, passed away without a visible abscess.

Case II illustrates several important points in this connection.

A. B. had disease of the spine at twenty months old, at which time her treatment commenced. Though she was a delicate child, as her parents were in good circumstances, and there appeared to be no struma in the family, and the disease was in the first stage, I had hopes of a speedy cure: that is restoration of form and function of the spine, as sometimes happens in young children under the most favorable circumstances; but I found difficulty in securing the attendance of the child so often as ought to have been the case. At one time there were four months between her visits, and the result was a certain amount of progress of the disease, rendering it ultimately one of the second class; that is a case capable of relief, but not cure, with restoration of form and function of the spinal column. Subsequently, better attendance was secured, but after a while symptoms of abscess showed themselves, and finally a lumbar abscess appeared.

Now my second proposition in regard to lumbar and psoas abscess, is, first, to watch them carefully, and if they increase to any considerable size; or if they occur near or in contact with bone with thin layer of soft tissue over it; or if they remain stationary and do not rapidly recede, then to promptly open them by a free incision with the curved bistoury. I accordingly sent a note to the family physician asking him to appoint a time to meet me for performing the operation. He replied in substance,

that since the child had an abscess, the case must be hopeless; that she could not live long at best, and it would be better to let her die in peace. I replied, energetically protesting that a case, with proper treatment to the spine, the source of the abscess, was by no means to be given up on the external appearance of an abscess; that in fact, the abscess which is but a symptom, is not to be feared, except for the trouble it causes. The child, I understand, was sent to several physicians, who gave the same unfavorable prognosis, which they would not have done had they seen the progress of lumbar and psoas abscess, when the disease of the bodies of the vertebræ is arrested by appropriate treatment. As the child was thin and the abscess was widely spread over the ilium and ribs, near the bones, I considered it *safest* to evacuate it, but not probably absolutely necessary. Well, in three months, the abscess had entirely disappeared, and the child never has been so well as at the present time. But it should be remembered, that the parents were stimulated to send the child more regularly to my office, and consequently, the diseased vertebræ have been better protected.

And I may here remark, that it not unfrequently happens, especially in dispensary practice, that the faithfulness or negligence of parents in attendance, may be often distinctly traced in a relative increase and diminution of these abscesses.

To go back once more to the period of my first experience with abscesses.

I ascertained, as before said, that a certain number of abscesses would disappear soon after the application of the spinal assistant, which I had contrived for those cases, but I was not always so fortunate. Cases would present themselves with disease of the spine, complicated with large, long standing

abscesses, and these gave me the greatest anxiety. Having seen the disastrous consequences of non-interference, I called Dr. Van Buren in consultation in my next important case; and it is due to candor to say, that it was from him that I got my first clear ideas of the injurious consequences of retaining a reservoir of pus in the soft parts. Dr. Van Buren advised the removal of the pus by the trochar, so soon as there was any considerable quantity, and repeating the operation as often as the cavity became filled again. He regarded the exclusion of air an important point, but the relieving of soft tissues from the destruction of their vitality, by the pressure of an accumulating abscess, of still greater. He correctly pointed out to me that from the lowered vitality of the parts adjacent to the abscess, they might become degenerated, and by secreting pus, in turn add a drain to the system, of more injury than the original source in the bodies of the vertebræ. For some time I used the trochar in accordance with Dr. Van Buren's recommendations; being careful always to use compression and endeavor to diminish, if not obliterate the reservoir. This operation was repeated as often as it was necessary to prevent any large accumulation of fluid. I was well satisfied with the results.

But the use of the trochar has its drawbacks. Besides being excessively painful, especially when repeated several times, many abscesses cannot be evacuated through the canula. An old abscess is apt to be filled with shreds of disintegrated muscle; fibrinous substances and cheesey matters, which effectually block up the largest canula. Fearing still to use the knife, which has been so much condemned in these cases, I found the use of the trochar, which gave satisfacrory results in some cases, fail in others. My path was thus partially blocked up

till accident opened the way. Having a delicate and strumous child, with a lumbar abscess reaching far out on to the floating ribs, she was chloroformed and the trochar plunged in. But no pus came. The canula was filled with shreds of disintegrated tissue. The skin was thin and tender, and on removing the tube, the matter followed, and the abscess was freely evacuated. Pressure was made by a compress over the abscess, except the outlet, which was left free, and securely fastened by adhesive strips.

The discharge continued for three weeks and then dried up. There was not the least constitutional disturbance.

Encouraged by the results in this instance, the next case was treated by a free incision and opening into the abscess, and this has been my unvarying practice ever since. Prompt evacuation of the contents of an abscess on its first appearance, by a free incision in the most dependent part, so as to secure complete egress of the fluid; firm and persistent pressure over the cavity, greatest at the circumference, and allowing the opening to be free; a few days of quiet of the patient, and increased vigilance in protecting the spinal column; this for the past five years has been my practice in the management of lumbar and psoas abscess. And I can say with emphasis, that in no single instance has there been the slightest constitutional disturbance or the least indications of the calamities which I had been led to expect. As my experience has been entirely uniform in this respect, I am led to the conclusion that it is the treatment to the spine, the drying up at its source of the cause of the abscess, and leaving little or nothing but the local trouble to be dealt with—which has made the difference between the experience of other surgeons,

who have confessedly not contemplated the arrest of the caries in the vertebræ, and my own. With adequate protection to the diseased vertebræ, one may lay open a newly formed abscess with impunity. The danger from the contact of air only occurs when the acrid, decomposing substance from the disintegrated bone is passing through it. If this source can be dried up, as I broadly assert that it can be in a majority of cases, we have nothing left but the reservoir with the vitality of its walls and subjacent tissue, more or less impaired, according to the pressure which has been exerted upon them, or the length of time they have been corroded by contact with unhealthy fluids, to deal with.

And here I come to my third proposition, which is this: The chief danger of a lumbar or psoas abscess arises—all other things being equal—from the neglect of it rather than from the fact of it.

My experience seems to have completely demonstrated that even in those cases—and they are few—where it is impossible to so far arrest the disease in the vertebræ as to prevent a discharge, if this discharge is prevented from accumulating by an early and free opening of the reservoir, and the tract of the discharge is reduced to a simple sinus, which furnishes outlet to the fluids, there is no danger to be apprehended. On the contrary, there is positive relief to the spine, and an acceleration of reparative action to have a free outlet to the fluids, resulting from the morbid process going on there. The case has not yet occurred in my experience, where the opening of an abscess at any stage, has been attended by anything but relief to the patient, even when it has been delayed so long that there was a continuous discharge afterwards. But whether there be a continuous discharge after the opening of an abscess, or whether it rapidly dries up, depends almost

entirely on how long the abscess has been allowed to remain to the injury of the tissues it lies in contact with. Our records show scarcely a single case where the abscess was opened in accordance with the principles above laid down, that the discharge did not gradually diminish, and finally cease altogether, without any of the constitutional irritation so generally feared. On the other hand, there is generally a marked improvement in the patient's condition, directly traceable to relief from the disturbing influence of accumulating fluids.

It is particularly desirable to remove the contents of an abscess situated over or near a bony tissue. An abscess over the sacrum, for instance, in a very short time, will so corrode the surface of that bone as to set up a new osseous disease, a new constitutional disturbance, and an independent drain on the system. I repeat that the neglect of these abscesses constitutes their chief danger.

The following cases will verify this assertion.

Case III.—W. G., 9 years old; disease involving several vertebræ, having its greatest prominence at the twelfth dorsal. Psoas abscess showing at the anterior and inner aspect of the thigh. Active and increasing. Opened by free incision October 1st, and one pint and a half of pus discharged. Dressed with strong compression on circumference of cyst, which was made each day to gradually approach the opening. Closed in about two weeks.

Case IV.—A. D., from Canada, 5 years old, with Pott's disease in lumbar region. Recent abscess on posterior aspect of right ilium. After securing firm support to the spine, the abscess was evacuated by free incision, and it closed in ten days. In this case, although the abscess had occupied the situation but a couple of months, there were indications that the ilium had already begun to be corroded by the contact of pus.

Case V.—W. C., aged 4 years, injured by falling down stairs, September, 1868. Projection in the spinal column, and lumbar abscess noticed October 14th, 1868. Abscess opened October 17th, and discharged one pint of pus. Closed and entirely healed, October 26th, 1868, in nine days. No trouble up to the present time.

In all of these cases, the abscess was opened while it was actively increasing, and not very long after the reservoir had formed. The success of their treatment depends less on the size of the abscess than on the length of time it has existed. An old abscess, even if it be very small in size, presents serious obstacles to rapid obliteration. When pus is allowed to remain in contact with healthy tissues, they are not only injured or destroyed by the pressure and presence of unhealthy fluids, but to protect themselves, the matter is encysted by the formation of a lining membrane, which not only becomes a secreting surface, but by its low vitality, rapidly dies, on its injury and the introduction of air.

And it is owing to the disastrous results in such cases—in the old encysted abscesses, where no arrest of the disease of the spine has been attempted, that has caused the repugnance to surgical interference. But you will notice that the conditions I have presented differ as widely as does the results of my practice. To arrest the disease in the vertebræ, and then discharge the contents of the abscess before the formation of a cyst, and while the tissues are still healthy and capable of rapidly uniting, constitutes the idea of my practice. It, of course, entirely depends upon the recent success in the treatment of disease of the spine.

Although there are many cases which do recover of an abscess by absorption, yet I consider it the safer, and therefore the better practice, to always open them.

Where the abscess had remained for several months, especially where it has remained stationary for that length of time, I do not generally expect rapid cessation of the discharge and closing of the opening. Though persistant pressure will do much even in those cases. If an abscess is allowed to remain a long time undischarged, we are apt to have serious secondary complications, the direct result of neglect, in the erosion and disease of bone, with which the pent up fluid has lain in contact. These secondary troubles are often of far greater seriousness than the original disease in the spine. And they are nearly or quite all avoidable by the early evacuation of the fluid. I have known cases of hip-joint disease where a small quantity of pus escaped from the joint and made its way along the femur, and by lying in contact with the bone for a length of time, establish a new and independent disease, with an issue which continued long after every vestige of the original disease in the joint had ceased to exist.

I have said nothing in regard to the importance of early evacuation of lumbar and psoas abscess, which does not lie with equal emphasis in regard to the abscesses formed in connection with disease of the hip-joint.

In still further illustration of this subject, I will give a few cases of abscesses in the latter disease.

Case VI.—N. E. had had hip-joint disease for one year; thigh flexed on the pelvis. Had suffered severely for several months, but the pains had ceased about two weeks before I saw him. This sudden cessation of severe pain in the hip without treatment, is a sure sign of the escape of pus from the joint by perforation of the capsular ligament. The case went on very favorably for several months, when the abscess, which had been expected, made

its appearance. At the earnest request of his mother, the abscess was not opened, and in the course of a few months it had entirely disappeared. The patient is now well of the disease, with good motion at the hip-joint; but there is less muscular power than in cases where the matter has been let out, in consequence, I believe, of the injury to the muscles, by its remaining long in their contact.

Case VII.—L. N., five years old, disease of hip two and a half years. Symptoms of an abscess were prominent, such as excessive pain with violent muscular contractions, when brought to me for treatment. Three months afterward the abscess appeared. It was promptly let out by a free incision. Patient was greatly relieved; no constitutional disturbance followed, and after discharging about three months, it ceased altogether. Six months later, patient had perfect motion in hip-joint; natural position of leg, no flexion or adduction, and perfect use of the muscles.

Of course in hip-joint disease, as in disease of the spine, the primary idea is first to relieve pressure in the joint, before treating the abscess.

I had prepared from our books a large number of cases to establish and illustrate the positions assumed in this paper. But the limits of my remarks are already exceeded, and I will not tax your time further.

If I have succeeded in convincing you that the time has arrived for the profession to take a step forward in another direction, as it is already advancing in so many ways, I shall have accomplished the object of my remarks this evening.

[Note.—Cases III, IV and V, were attended by Dr. David C. Carr, of the Orthopædic Dispensary.]